Frequently Asked Questions about Cincinnati Streetcar Feasibility Study

Feasibility Study

What was the purpose of the feasibility study?
The purpose of the feasibility study was to first determine whether a streetcar transit alignment serving downtown and adjoining neighborhoods was physically possible given traffic engineering and design issues. The study then examined the cost to design and construct a proposed streetcar system, the ongoing costs to operate and maintain such a system, the estimated ridership and travel markets to be served by the system, and the economic benefits to the City and community from such an investment. The project team, with the help of the stakeholder working group, identified a "starter" 4 mile streetcar alignment to be studied for feasibility purposes. The team also ensured that potential future streetcar extensions off of the starter system were feasible.

Why consider a streetcar only within the City of Cincinnati in this study?
Experience from successful streetcar projects nationwide indicates that it is best to begin with a relatively short "starter" line connecting existing traffic generators with areas prime for redevelopment. The City, with the help of the stakeholder working group, decided early on in the study to focus the initial "starter" line on downtown and adjoining neighborhoods within the City.

Was there any public participation and community input to the study?
The City established a stakeholder working group to provide guidance and comments on the conduct of the study. The group included staff from the City, OKI, Metro (transit), downtown business and civic associations, the real estate development community, and local residents and merchants.

Who are the consultants that completed the study, and are any of them locally based in Cincinnati?
HDR and PB, two of the leading transportation consulting firms in the country, have completed the feasibility study for the City. Each firm has a local Cincinnati office that has been actively involved in the study. HDR is considered one of the leading firms in the planning and implementation of streetcar transit projects, and is drawing on national transit experts and local office management. The PB Cincinnnati office has brought great local knowledge of transit and transportation projects to the team.

Study Streetcar Alignment

How did the City decide on this specific streetcar route?
The consultant team and City staff, with support from the stakeholder working group, early on decided that the study should first identify a relatively short "starter" line focused directly on downtown and the immediately adjacent neighborhood of Over-the-Rhine. At the same time, the team identified a series of potential extensions that could be added to the starter line. The team examined three alternative alignments connecting downtown and Over-the-Rhine, considering downtown routes on Main/Walnut, Main/Sycamore, and Elm/Race. The stakeholder working group decided that the 4-mile Main/Walnut downtown alignment and the Elm/Race Over-the-Rhine route would make a reasonable study of overall feasibility, cost and benefits of streetcar.

How long is the streetcar route and how many stops are considered in the study?
The streetcar route examined in the study is 3.9 miles long, forming a single track loop along Main and Walnut Streets in downtown and up to Elm and Race Streets in Over-the-Rhine. The study route identified 18 streetcar stops, located about every two blocks along the route.

How fast will the streetcars travel? For example, how long will it take to get from the Banks to Findlay market?
Streetcars operating on the route examined in the study will average around 12 miles per hour, operating in mixed traffic and stopping at traffic light and passenger stops. A typical trip covering nearly 2 miles from the Banks to McMicken would take about 15-16 minutes on the streetcar.

Why not go directly to Uptown and the University of Cincinnati?
The Study team decided to examine a relatively short "starter" line focused directly on downtown and the immediately adjacent neighborhood of Over-the-Rhine. Additional services connecting to Uptown and UC, as well as to other locations, can be examined in next steps.

Why not cross the river to Kentucky?
The Study team decided to examine a relatively short "starter" line focused directly on downtown and the immediately adjacent neighborhood of Over-the-Rhine. Additional services connecting to Covington and Newport, as well as to other locations, can be examined in next steps.

Cost Estimates

What is the estimated cost to design and construct the streetcar system? And, what does this cost estimate include?
The baseline estimated cost for the 4-mile streetcar line is $88 million (in 2007, current year dollars). That figure is escalated to $102 million for construction by 2010. The cost estimate includes approximately 4.5 miles of track and overhead power supply (for the route and storage/maintenance), 6 streetcars, 18 streetcar stops, and a maintenance/storage facility for the streetcars. The cost estimate includes a 15% to 25% contingency on project line items, considered appropriate for this phase of study.

How many streetcars does this include, and how did the study come up with that estimate?
The cost estimate includes purchase of 6 modern streetcars, similar to those used currently in Portland and Tacoma and to be introduced in cities such as Charlotte, Miami, Tucson, Austin, and others. The streetcar operating plan developed for the feasibility study estimated that 4 streetcars would be needed to provide service on the 4-mile route every 10 minutes in the peak period. An additional cars were added to the cost estimate to ensure that adequate spares were available and to allow increased levels of service during special events.

Will the City need to purchase any property along the streetcar route?
The streetcar route operates directly on the public owned street, and stops are along the sidewalk. As a result, there are only a few areas where small pieces of property or easement may be required as the route makes turns on streets or for some passenger stop areas. A site of up to around 2 acres will be needed for a streetcar maintenance and storage facility as well as operations center. The cost estimate includes land acquisition and construction of this facility.

How does the capital cost for the Cincinnati project compare to other streetcars around the country?
The study team has been conservatively high in completing the cost estimate to design and build the streetcar. The preliminary cost estimates compare quite favorably to other projects nationwide. While other projects completed and in design are averaging $15 million to $20 million per mile of streetcar track, the estimate for the 4-mile Cincinnati streetcar totals $22 million per track mile.

How much will it cost to operate and maintain the proposed streetcar system?
The study team produced an estimated range of $2.0 to $2.7 million per year to operate and maintain the streetcar system. This cost estimate assumes a level of service of 10 minute frequencies during peak periods and 20 minute frequencies the rest of the day. The cost estimate includes labor for streetcar operators, for maintenance of the streetcars, track and other facilities, and for ongoing management and administration of the service.

Does that annual operating cost take out revenues from passenger fares?
The range of $2.0 to $2.7 million in annual operating costs does not take out any revenues from passenger fares. This estimate is the total cost to operate and maintain the system, without consideration of any of the different revenue sources.

Where will the streetcars be stored and maintained? Is this cost included in the estimate?
The cost estimate includes a facility to store and maintain the streetcars. The cost estimate assumes up to 2 acres of property needed to accommodate this facility and storage yard, and to be able to accommodate reasonable growth of the streetcar system to other potential corridors.

Streetcar Ridership Estimates

How many riders a day do you expect on the streetcar system?
The forecasts estimate a range between 3,700 to 5,600 daily passengers boarding potentially on the Streetcar by the opening year of 2010. This equates to about 1.3 million riderships per year in the opening year. And, forecasts estimate a range of 5,000 to 7,900 boarding by the year 2015, equating to about 1.8 million passengers per year.

Does this number include streetcar riders for special events such as baseball and football games, events at the arena, and street festivals?
Ridership numbers reported reflect a typical weekday. The basic ridership estimates reported above do not include streetcar riders for special events. The streetcar can be expected to provide service to such special events, and therefore some streetcar ridership can be expected from these events. However, quantifying their contribution to Streetcar ridership is more difficult. In order to continue to be conservative in our analysis, the study team did not include such estimates in the baseline ridership numbers.

A simplified forecast was developed for the major, regular stadium events (Reds baseball and Bengals football). These numbers have not been included in the "average daily" forecast described above, because they do not occur every day, but rather on a more limited basis (81 baseball games and 10 football games per year). A more detailed analysis of the stadium and other events will be performed in a later phase of the study.

How was ridership for the streetcar estimated In the study? And, are these numbers reasonable?
Ridership estimates were made for each of a number of distinct markets (commuters, downtown residents, etc.) by using local travel pattern data provided by OKI and used in their regional travel demand modes, then applying established statistical techniques for identifying the percentage of trips likely to use the streetcar. Data such as travel times of streetcars and competing modes as well as local parking costs were included as well.

The forecasts were designed to be reasonable and conservative. They are in line with other recent streetcar projects in the US while still taking into account elements unique to Cincinnati. Forecasts were produced to represent year of opening (2010 - 2011) and a forecast after the system has been in operation for a few years (2015)

How much will it cost as a fare to ride the streetcar?
No fare policy has yet been decided. A range of forecasts were made assuming a reasonable range of fares from $1 (the current local bus fare) to 50 cents (half fare, as used in some cities), to free (as used in some cities).

Financing the Streetcar

Has a financial plan been finalized to construct and operate the streetcar system?
The feasibility study did not complete a financial plan to construct and operate the streetcar system. However, the study team did identify a menu of federal, local and private sector funding sources to be examined in greater detail in next phases of the study.

Is any Federal funding available?
Federal funds may be available to contribute to the capital construction of the streetcar system. Some portion of the traditional federal formula and grant funds distributed to Cincinnati region could be used to contribute to the streetcar. The Federal government also has a discretionary program, called New Starts, for capital funds for transit projects. Congress recently set aside funds from this program for smaller investments such as streetcars and other circulators. These funds may be available for projects like the Cincinnati streetcar in the near future. To date, pursuit of these federal discretionary funds has been quite competitive and time consuming. However, our consultant team is actively engaged in the national New Starts program, and we will continue to monitor the federal funding opportunities.

What are some of the other funding sources under consideration?
In addition to potential federal funds, the study team identified a series of local and private funding sources for further consideration. Local funds could range from general obligation bonds to dedicated taxes of some sort. While other sources could include tax increment financing or some type of benefit assessment district to tap into the anticipated economic development to be generated along the streetcar line. A more detailed implementation and financial plan would be developed as the next phase of study.

How are other streetcar systems around the country financed?
Streetcar systems in operation and in design around the country are financed by a variety of funding sources, similar to the menu of options identified in the feasibility study. Systems have applied dedicated local taxes as well as tax increment financing and benefit assessments to fund design and construction as well as ongoing operations of the system.